

## **REMARKS**

In the outstanding Office Action, Claims 1-13 were examined. Claims 1-3 were rejected and Claims 4-13 were objected to. Claims 2-9, 11 and 12 have been amended to correct claim dependency. Claim 14 has been added. Claims 1-13 have been amended to provide further clarity. Claims 1-14 remain.

In response to the above-identified Office Action, Applicant respectfully requests reconsideration in view of the above amendments and following remarks.

In the Action, the abstract of the disclosure is objected to because it contains an extraneous word “comprises”. In response, Applicant has amended the abstract. Approval is respectfully requested.

Claims 4-13 are objected to under 37 CFR 1.75(c) as being in improper form. In response, Applicant has amended claims 2-9, 11 and 12 to correct multiple claim dependencies. Approval is respectfully requested.

Claims 1-3 are rejected under 35 USC 103(a) as being unpatentable over Volbrecht (4,934,831) in view of Adachi et al. (6,880,969). In response, Applicant respectfully disagrees for the following reasons. Both Volbrecht and Adachi et al. relate to temperature sensors for measuring temperature, whereas the claimed invention is directed to a heater resistance, that is a device for producing heat. The temperature sensors disclosed in Volbrecht and Adachi et al. comprise wires made of lead and platinum respectively. Such wires are not resistance wires adapted for providing heat as in the case with the present invention. Therefore these devices may not be operated as a heater resistance for heating a solid part as required by the claims.

More specifically, Volbrecht does not disclose a heater resistance but a temperature sensor which is one main difference relative to the claimed invention. Further, in Volbrecht, the active portion of the sensor comprises a ceramic sheath (24) surrounding stripped wires (16, 18). However, this ceramic sheath (24) does not comprise a woven layer as required by Claim 1. On the contrary, this sheath (24) is made from powder which is squeezed around the wires (16, 18) to form said sheath (see col.3, lines 60-64). The wires are brought to the active portion through a cable (12) which could be referred as the inactive portion of the sensor. The cable (12) is made of an insulation layer (30) which comprises a woven stainless steel mesh (32). This insulation



layer (30) is for protecting the wires of the inactive portion. Therefore, such insulation layer (30) and associated woven stainless steel mesh (32) is distinct from the portion of the wires (16, 18) surrounded by the ceramic sheath (24). All these differences demonstrate that the claimed invention is novel in view of Volbrecht. Further, the woven stainless steel mesh (32) is presented in Volbrecht as a means for increasing the durability of the portion of cable (12) surrounded by the insulation layer (30) (see col. 3, lines 21-23). It is however not required to increase the durability of the active portion comprising the wires (16, 18) surrounded by the ceramic sheath (24). Indeed, the wires (16, 18) and the sheath (24) are enclosed in a metal tube (22) and a further woven stainless steel mesh would be useless. As a consequence, the teaching of Volbrecht does not suggest surrounding wires with a ceramic sheath that would comprise a woven layer.

In addition, Adachi et al. relates to a temperature sensor and not a heating resistor, which is one difference with the claimed invention. The sensor of Adachi et al. comprises wires which are inserted within an insulating ceramic member (8), such member being formed by molding a ceramic powder (see col. 4, lines 6-10 and lines 23-28). Adachi et al. does not disclose nor suggest using a woven layer in the ceramic member. As a consequence, in view of these differences, the claimed invention is clearly patentably distinguishable over the teachings of Adachi et al. In addition, the sensor disclosed by Adachi et al. comprises a metal cover (2) that encloses the wires surrounded by the ceramic member. Bearing in mind that the woven mesh disclosed in Volbrecht is used for increasing durability of the sheath, it can be stated that a person skilled in the art would not have used such a woven mesh with the ceramic member (8). Indeed, it would have been useless, because a metal cover (2) increases durability of the sheath. As a consequence, the teaching of Adachi et al. in view of Volbrecht does not disclose nor suggest surrounding wires with a ceramic sheath that would comprise a woven layer. Further, the devices in Volbrecht and Adachi et al are sensors which measure temperature. They do not operate to heat a solid part. Thus, the teachings of Volbrecht and Adachi et al. differ both structurally and functionally from this invention as claimed.

In view of the foregoing, Applicant submits that claims 1-3 should be considered inventive over the prior art. Further, since claims 4-13 have been amended so they are no longer



in improper form, and since they depend from Claim 1, Claims 4-13 also patentably define the subject invention over the cited references of record and are now in condition for allowance, which action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If there are any fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666.

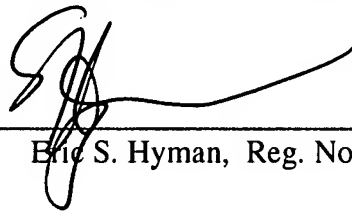
Respectfully submitted,

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Dated:

7/24/07

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Linda Marie Metz July 24, 2007

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